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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,430	09/07/2000	HIDEKI NAGATA	15162/02430	1547
24367	7590	07/12/2004	EXAMINER	
SIDLEY AUSTIN BROWN & WOOD LLP 717 NORTH HARWOOD SUITE 3400 DALLAS, TX 75201			NGUYEN, KIMNHUNG T	
			ART UNIT	PAPER NUMBER
			2674	17

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/657,430

Applicant(s)

NAGATA ET AL.

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This application has been examined. Claims 1-22 are pending. The examination results are as following.

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 11-15 and 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US 6,170,953).

Regarding claim 1, Lee discloses in figure 1 an image display system comprising at least two screen (900a, 900b) onto images are projected; at least one display device (850) for display the images that are to be projected onto the screens (900a, 900b), a total number of display devices (850) being smaller than a total number of screens (900a, 900b); and at least one projection optical system (200) for projecting the images display on the display device onto the screens.

Regarding claims 2-5, 15, Lee discloses in figure 2 an image display system, wherein the projection optical system (200) includes a mirror (21) that reflects an inherent the images from the display device toward the screen (see column 3, lines 37-

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39); the display device displays in different orientations the images projected by way of the mirror and the images projected not by way of the mirror (because the screens 900a, 900b has different direction); and wherein the screens (900a, 900b) having an inherent form inner wall faces of an observation room for housing an observer, or an inherent display device is arranged outside the observation room.

Regarding claim 11, Lee discloses a method of building image display system comprising at least two screen (900a, 900b) onto images are projected; at least one display device (850) for display the images that are to be projected onto the screens (900a, 900b), a total number of display devices being smaller than a total number of screens; and a step of installing at least one projection optical system (200) for projecting the images displayed on the display device onto the screens; and a step of projecting the images displayed on the display device through the projection optical system onto the screens (see figure 2).

Regarding claims 12-14, Lee discloses in figures 1-2 a method of building an image display system, wherein the projection optical system (200) includes a mirror (21) that reflects the images from the display device toward the screen, the display device displays in different orientations the images projected by way of the mirror and the images projected not by way of the mirror; and wherein the screens form inner wall faces of an observation room for housing an observer as discusses above.

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Regarding claims 21-22, Lee discloses in figure 1, wherein a total number of projection optical system (200) is less than to total number of screens (900a, 900b).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 9-10, 16 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 6,170, 953) in view of Lechner (US 6,190,172).

Regarding claims 6, 16, Lee does not disclose wherein a total number of projection optical systems is equal to the total number of the display devices. Lechner discloses in figure 9 a total number of projection optical system (see lenses 30) is equal to the total number of the display devices (28) (see figure 9).

Regarding claims 9-10, and 19-20, Lechner discloses in figure 4, wherein a total number of projection optical system (30) is equal to the number of the screens (12) (see figure 9, see the first and second display screen are securely joined, see column 11, lines 11-13).

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From the claims 6, 9-10 and 19-20, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the a total number of projection optical system (lens 30) is equal to the total number of the display devices, or wherein a total number of projection optical system (30) is equal to the number of the screens as taught by Lechner into the system of Lee because this would provide the video images to the respective display screens.

5. Claims 7-8 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 6,170,953) in view of Lechner (US 6,190,172) as applied to claims 1 and 11 above in view of Yamazaki et al. (US patent 6,377,230).

Regarding claims 8 and 18, Lee and Lechner disclose every feature of the claimed invention, excluding wherein a projection optical system includes a shutter that is opened and closed of the images displayed on the display device. Yamazaki discloses a liquid crystal shutters of a-glass to open and close of the images displayed on the display device (see column 11, lines 37-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the liquid crystal shutters of a-glass to open and close of the images displayed on the display device as taught by Yamazaki into the display system of Lee and Lechner because this would help the user open or close of the images displayed on the display at the same time.

Regarding claims 7 and 17 are pending claims 1 and 11, and are rejected on the same reasons set forth in claims 1 and 11.

Lee and Lechner do not disclose the display device displays on a time-division basis the images to be projected onto the screens. Yamazaki et al. disclose the displaying

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different images with time-division of two or more different three-dimensional images (see column 32, lines 6-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the displaying different images with time-division of two or more different three-dimensional images as taught by Yamazaki et al. into the device of Lee and Lechner for producing the claimed invention because this would provide a plurality of information simultaneously using an identical screen and allow a plurality of image information independently, and so on.

### ***Response To Arguments***

6. Applicant's arguments filed on 2-2-04 have been fully considered but they are not persuasive in view of new ground rejection.

Applicant argues that Lechner does not disclose "a total number of display devices being smaller than a total number of screens". However, examiner respectfully disagrees with the argument because new ground rejection of Lee discloses in figure 1 as discusses above.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

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If attempts to reach the examiner by telephone are unsuccessfully, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D. C. 20231

**Or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only).**

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kimnhung Nguyen  
July 7, 2004

  
**REGINA LIANG**  
**PRIMARY EXAMINER**